

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-007716**Date Inspected:** 15-Jun-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Wang Chuan Qing, Xu Le Feng**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and OBG Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector George Goulet was present during the times noted above for observations relative to the work being performed.

Trial Assembly Area

This QA Inspector, George Goulet, randomly observed the following in side plate to side plate lap plates between panel points 20~21 on segment 3W in response to Bolting Inspection Notification Sheet No. 00021.

ZPMC workers performed final bolt tightening verification at the direction of ZPMC QC Shen Jiang Bo (QC1) using ZPMC calibrated wrench identified by scribing on the handle as XO2-584. Two of the ASTM A325 bolt sets at each connection were torque tested, with a minimum of four bolt sets tested on each lap plate. QC1 provided this QA Inspector, George Goulet, with the following information regarding the bolt sets installed at this location.

This QA Inspector, George Goulet, observed ZPMC's Bolt Test Log for SFOBB (RoCap list), listing the RoCap Set numbers, bolt set size, and the N.M test result for torque tightening purposes. The information presented by QC1 and listed below appeared to this QA Inspector, George Goulet, to match the RoCap list.

RC Set No. DHGM220016 – M22-2.5x65 – RoCap test result 495N.M - Installed at side plates

The torque of the above noted bolt sets were verified by torque testing with the above noted calibrated wrench with the wrench setting displayed as 500N.M.

This QA Inspector, George Goulet, concurred with QC1 for the issuance of green tag numbers.

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Segments 3AE/3BE, both north and south sides, panel points 19~23, outer bolts sets on lower chevron connections:

ZPMC workers performed final bolt tightening verification, per ZPMC Bolting Inspection Notification Sheet #00028, using ZPMC calibrated wrench XO2-584, set at 460N.M, per ZPMC's Bolt Test Log for SFOBB listing the RoCap Set numbers and the N.M test result for tightening purposes. ZPMC QA Lei Tao informed this QA Inspector, George Goulet, that the bolt sets installed at this location came from RC Set No. DHGM220004, item number 13 on the list. Only 34 of the 36 outer bolt sets of the lower chevron lap plate connections were tested. On each plate was installed 34 - M22-2.5 x 70 ASTM A325 bolt sets. Two of the bolt sets on each side of the lap, chosen randomly by this QA Inspector, George Goulet, were tested and appeared to have been tightened to the wrench setting.

Bay 10

This QA Inspector, George Goulet, randomly observed the following work in progress in Bay 10:

SAW welding of weld joints NSD1-FESA4-3A/F-23B, 22, 18B located on PCMK north tower, lift 4, skin E. Welder was identified as 040460. ZPMC QC was identified as CWI Wang Chuan Qing (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Lu Wei Chao, who was not a CWI. The welding variables recorded by QC1 and QC1's assistant appeared to comply with WPS-B-T-2221-B-U3c-S-2 for the CJP welds and WPS-B-T-2321-B-P3-S-2 for the PJP weld.

SAW welding of weld joints NSD1-FESA4-3A/F-17, 14B, 13, 9B(2) located on PCMK north tower, lift 4, skin E. Welder was identified as 052917. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Lu Wei Chao, who was not a CWI. The welding variables recorded by QC1 and QC1's assistant appeared to comply with WPS-B-T-2221-B-U3c-S-2 for the CJP welds and WPS-B-T-2321-B-P3-S-2 for the PJP welds.

SAW welding of weld joints NSD1-FCSA4-3A/C-8A, 19, 5A(2) located on PCMK north tower, lift 4, skin C. Welder was identified as 220081. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Lu Wei Chao, who was not a CWI. The welding variables recorded by QC1 and QC1's assistant appeared to comply with WPS-B-T-2221-B-U3c-S-2 for the CJP welds and WPS-B-T-2321-B-P3-S-2 for the PJP weld.

Bay 11

This QA Inspector, George Goulet, randomly observed the following work in progress in Bay 11: SMAW tack welding of weld joints ESD1-FESA4-2A/F-6A, 7A located on PCMK east tower, lift 4, skin E. Welder was identified as 204202. ZPMC QC was identified as CWI Xu Le Feng (QC2). Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Fu Wei Min, who was not a CWI. The welding variables recorded by QC2 and QC2's assistant appeared to comply with WPS-B-T-2211-B-U3b. Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

As noted above, and this QA Inspector, George Goulet, asked each welding QC if all the welding variables observed by QC appeared to comply with the appropriate WPS, including the preheat requirements according to

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thickness of the thickest member being welded. Each welding QC showed this QA Inspector, George Goulet, that each welding QC was carrying the proper temperature sticks to monitor the minimum and maximum preheat and interpass temperatures and replied that all each welding QC observed did appear to comply.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Serge Sinevod, 134-8257-0045, who represents the Office of Structural Materials for your project.

Inspected By:	Goulet, George	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer
